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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/826,951

04/15/2004

Satoshi Nishino

47539.35

1604

7590

04/04/2006

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EXAMINER

GARCIA JR, RENE

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

HA

Office Action Summary	Application No. 10/826,951	Applicant(s) NISHINO, SATOSHI	
	Examiner Rene Garcia, Jr.	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8,15,16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 3,4,9-14 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10 August 2005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because use of legal phraseology. Correction is required. See MPEP § 608.01(b).
4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Image Recording Apparatus With Wipe Unit And Nozzle Maintenance Unit.

Claim Objections

5. Claim 1, line 4, objected to because of the following informalities: "an maintenance" should be "a maintenance". Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 8, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al. (US 6,206,498).

Kondo et al. discloses the following claimed limitations:

*regarding claim 1, image recording apparatus/**printer, 1/** comprising:

*recording head/**ink jet head, 10/** comprising a plurality of nozzles/**nozzle plate, 11/** for jetting an ink (fig. 7; col. 3, line 62-col. 4, line 8)

*maintenance unit/**50/** for performing an maintenance operation to the nozzles, the maintenance unit comprising an absorbing member/**ink absorbing sheet, 53/** to wipe an ink adhered to the nozzles and receive an ink residue purged from the nozzles during the maintenance operation (figs. 1-4; col. 4, lines 204-24; col. 5, line 58-col. 6, line 61)

*regarding claim 2, maintenance unit comprises a drive mechanism for moving an ink absorbed portion of the absorbing member to a new position after the absorbing member absorbed the ink (col. 6, lines 35-63)

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*regarding claim 8, image recording apparatus/**printer, 1/** comprising:

*recording head/**ink jet head, 10/** comprising a plurality of nozzles/**nozzle plate, 11/** for jetting an ink onto a recording medium (fig. 7; col. 3, line 61- col. 4, line 8)

*wipe unit/**50/** provided on at least one of an upstream side and a downstream side (up/down stream is relative to movement) of the recording head in a moving direction, the wipe unit comprising an absorbing member for absorbing an ink which was jetted and adhered to a portion (nozzle plate) other than the recording medium (figs. 1-4; col. 4, lines 20-24; col. 5, line 58-col. 6, line 61)

*regarding claim 15, suction cap/**purge unit, 30/** in a movable range of the recording head/**ink jet head, 10/** for performing a maintenance of the nozzles by suctioning an ink in the nozzles of the recording head, wherein the absorbing member absorbs an ink adhered to the suction cap (figs. 1-4 and 7; col. 4, lines 19-24; col. 4, line 36 -44; col. 6, lines 13-25)

*regarding claim 16, wipe unit comprises a drive mechanism for moving an ink absorbed portion of the absorbing member to a new position after the absorbing member absorbed the ink (col. 6, lines 35-63)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (US 6,206,498) in view of Schleinz et al. (US 5,501,149).

Kondo et al. discloses all the claimed limitations except for the following:

*regarding claims 5 and 18, absorbing member is formed with a high density fiber having a fineness of 0.1 denier or less

Schleinz et al. discloses the following:

*regarding claims 5 and 18, absorbing member is formed with a high density fiber having a fineness of 0.1 denier or less (col. 6, lines 9-14; see also col. 5, lines 22-42 & col. 3, lines 36-45)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize absorbing member is formed with a high density fiber having a fineness of 0.1 denier or less as taught by Schleinz et al. into Kondo et al. for the purpose of absorbing ink and prevent buildup.

10. Claims 6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (US 6,206,498) in view of Ouchi et al. (US 2002/0171725).

Kondo et al. discloses all the claimed limitations except for the following:

*regarding claims 6 and 19, ink has a viscosity of 10 to 500 mPa's at 25° C and a surface tension of 20 to 40 mN/m

Ouchi et al. discloses the following:

*regarding claims 6 and 19, ink has a viscosity of 10 to 500 mPa's at 25° C and a surface tension of 20 to 40 mN/m (TABLE 1; paragraphs 0050-0058)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize an ink that has a viscosity of 10 to 500 mPa's at 25° C and a surface tension of 20 to 40 mN/m as taught by Ouchi et al. into Kondo et al. for the purpose of high speed printing

11. Claims 7 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al. (US 6,206,498) in view of Ohtsu et al. (US 2003/0063172).

Kondo et al. discloses all the claimed limitations except for the following:

*regarding claims 7 and 20, ink comprises an active energy ray curable compound, and an active energy ray comprises an ultraviolet ray

Ohtsu et al. discloses the following:

*regarding claims 7 and 20, ink comprises an active energy ray curable compound, and an active energy ray comprises an ultraviolet ray (paragraphs 0016-0019)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize ink that comprises an active energy ray curable compound, and an active energy ray comprises an ultraviolet ray as taught by Ohtsu et al. into Kondo et al. for the purpose of curing and fixing ink.

Allowable Subject Matter

12. Claims 3, 4, 9-14 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The primary reason for indicating allowable subject matter of claims 3 and 4 is the inclusion of the

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limitations of an image recording apparatus including each of the inks is a type of being cured by an irradiation with light, and the maintenance unit comprises a light irradiation device for irradiating the ink absorbed in the absorbing member with light. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for indicating allowable subject matter of claims 9-14 is the inclusion of the limitations of an image recording apparatus including a platen for supporting the recording medium, wherein the absorbing member absorbs an ink adhered to the platen. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for indicating allowable subject matter of claim 17 is the inclusion of the limitation of an image forming apparatus including inks is a type of being cured by an irradiation with light, and the wipe unit comprises a light irradiation device for irradiating the ink absorbed in the absorbing member with light. It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Conclusion

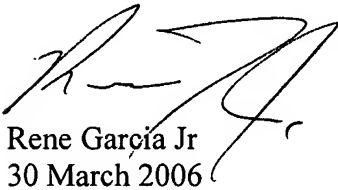
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakashima (US 2003/0218652) includes removing ink from a platen with a cleaning member located in a position downstream or upstream of print head.


Communications with the USPTO

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rene Garcia, Jr. whose telephone number is (571) 272-5980. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rene Garcia Jr
30 March 2006


K. Figgins
EXAMINER